

THREE YEAR PLAN 1991-1993

RESEARCH

I. AGGRESSIVELY SUPPORT THE CURRENT BUSINESS

A. Objective

Improve product quality by the development and application of new analytical methodology.

Strategies

Develop new approaches to identify and solve off-taste/off-odor problems in PM products.

Introduce gas chromatography coupled with Fourier transform infrared spectroscopy to extend identification capabilities.

Maintain and further develop a program to correlate subjective and chemical changes in cigarettes caused by different printing techniques used for packaging materials. Extend program to offset and water-based printing systems and to the EEMA region.

Assure that sidestream yields of PM products are in compliance with future internal guidelines and provide regular market-place surveys.

Intensify efforts towards implementation of NIR technique in production areas.

Speed-up pesticide residue routine analyses by developing and implementing GCMS-based screening techniques for classes of pesticides.

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B. Objective

Monitor the compliance of blend components and ingredients with the legal requirements in both EEC and EEMA regions.

Strategies

Maintain and continue to upgrade the monitoring program for chemical constituents in all materials going into the fabrication of a cigarette so as to be in complete compliance with specific laws within PME.

Continue monitoring of pesticide residue levels in leaf tobacco and finished products.

Extend program to new pesticides as requested by PME management and/or legal requirements of the EEC and EEMA regions.

Strongly support Leaf Department in controlling critical pesticides (e.g., MH-30, DTC) in PM brands.

Centralize and computerize in co-operation with PM-US information regarding legal situations and requirements in the fields of pesticides, additives and packaging materials of all EEC and EEMA markets, in order to be able to immediately react to legal changes.

C. Objective

Assess the impact of environmental tobacco smoke (ETS) on indoor air quality in order to provide maximum technical assistance to corporate affairs.

Strategies

Continue the in-house program to monitor selected ETS components in real life environments during the course of controlled smoking sessions.

Support independent outside ETS studies in direct co-operation with PME-S&T aimed at assessing ETS exposure and its impact in real life environments.

Improve on existing analytical methods for assessment of ETS exposure, e.g., find more restrictive determinations of ETS related to respirable particulate matter.

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D. Objective

Support corporate affairs in defending industry position.

Strategy

Actively participate in inter-company analytical programs leading to industry and government accepted methodology.

II. DEVELOP PRODUCTS WHICH ADDRESS THE CONSUMERS' DESIRE TO REDUCE THEIR HEALTH CONCERNS

A. Objective

Acquire technical information necessary to develop new products or to modernize existing ones so as to have acceptable products with excellent commercial quality available.

Strategies

Reduce the pyrolysate fraction of cigarette smoke condensate by modifying the cigarette filler and maintain at the same time the consumers subjective acceptability of the modified product.

Evaluate new filter concepts as generated within and outside of R&D to determine product advantages in the market-place due to selective elimination of certain smoke components.

III. DEVELOP PRODUCTS WHICH ADDRESS THE PUBLIC'S DESIRE TO REDUCE ENVIRONMENTAL TOBACCO SMOKE

A. Objective

Develop basic knowledge to focus on problems related to the development of new products which addresses the environmental tobacco smoke (ETS) issue.

Strategies

Continue the program to investigate the formation of undesirable components in aging cigarette sidestream smoke and develop an understanding of how to control them.

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Study the effect of cigarette parameters and filler additives on total sidestream smoke yield and in particular on gas phase composition.

Investigate ways to diminish the sensory impact of environmental tobacco smoke.

IV. DEVELOP NEW PRODUCTS WHICH CAN BE MARKETED USING CURRENT STRATEGIES AND GIVE SMOKERS A PRODUCT ADVANTAGE

A. Objective

Contribute to the development of new or improved products designed to give tailored delivery profiles by providing analytical data and developing new analytical methodology to meet the needs of Product Development.

Strategies

Maintain the program for the measurement of puff-by-puff mainstream smoke deliveries of selected components.
Upgrade methodology for use as a routine analytical method by QA.

Identify the causes of the development of butt odor in order to eliminate them.

V. IDENTIFY NEW PRODUCT/INTERNATIONAL PROCESS CONCEPTS AND DEVELOP PRODUCTS/PROCESSES FOR THE INTERNATIONAL MARKET

A. Objective

Improve the taste characteristics of tobaccos.

Strategies

Correlate subjective, chemical and microbiological changes in cigarettes caused by primary processing practices.

Continue monitoring of temperature and water activity in tobacco processing in our European primaries.

Study the impact of processing conditions on tobacco microbiology and the resulting effects on product quality.

Control tobacco microbiology and sensory characteristics by implementing microbial processing specifications.

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VI. PROVIDE A BROAD FOUNDATION OF BASIC RESEARCH THAT WILL
GENERATE NEW PRODUCT CONCEPTS IN 5-15 YEARS

A. Objective

Maintain the scientific, technical and innovative base required to support PME's emerging business.

Strategies

Develop technical expertise through the training of Research personnel.

Encourage innovation by patenting and publishing research results.

B. Objective

Continue basic research on tobacco microbiology and develop applications in the field biotechnology within PM which will favorably impact on new or existing products and/or processes.

Strategies

Continue research towards more appropriate natural preservatives and pesticides to provide alternatives to existing systems.

Improve product quality by bio-removal of specific tobacco compounds in close co-operation with an external institute.

Continue to study the physiology of identified bacteria as a function of tobacco water activity and heat treatments in primary processing.

Study the metabolism of these bacteria and evaluate their impact on the subjective quality of the finished product.

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